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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/681,662 | 10/07/2003 | Kazuhiko Kato | KASAP040 | 7276 |

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| EXAMINER | |
|---|---|
| KING, ANITA M | |
| **ART UNIT** | **PAPER NUMBER** |
| 3632 | |

DATE MAILED: 06/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | | | |
|---|---|---|---|
| ## *Office Action Summary* | **Application No.**<br>10/681,662 | **Applicant(s)**<br>KATO, KAZUHIKO | |
| | **Examiner**<br>Anita M. King | **Art Unit**<br>3632 | |

***-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --***

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *07 October 2003*.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-9* is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-9* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *07 October 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☒ All b)☐ Some * c)☐ None of:
1.☒ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *1073/03*.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

This is the first office action for application number 10/681,662, Suspension Rubber Bushing of Vertical Mount Type, filed on October 7, 2003.

## *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

## *Drawings*

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "50". Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Figures 6 and 7 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

The disclosure is objected to because of the following informalities: on page 2, line 3 and page 8, line 19, "busing" should be --bushing-- and on page 2, line 6, "year" should be --years--.

Appropriate correction is required.

### *Claim Objections*

Claims 2 and 3 are objected to because of the following informalities: in line 1 of claim 2, "busing" should be --bushing-- and in line 2 of claim 1, a comma should be inserted after "oriented". Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 and 7-9 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,717,111 to Saito. Saito discloses a suspension rubber bushing comprising: an inner sleeve (10); an outer sleeve (12) disposed about the inner sleeve with a radial spacing therebetween; a rubber elastic body (14) interposed between and elastically connecting the outer and inner sleeves, wherein the rubber elastic body is formed with a shape, as viewed in vertical cross section in a first direction coincident with a direction of prizing force input, having rubber legs (see attachment 1) affixed to an axially center portion of the inner sleeve, the rubber legs extending towards mutually opposite axial ends, towards the outer sleeve and away fro the inner sleeve so as to form depressed spaces between the rubber legs and the inner sleeve to either axial side of the axially center portion, and as viewed in vertical cross section in a second direction approximately orthogonal to the first direction, having a main body rubber portion thicker than the rubber legs and elastically linking the inner sleeve and outer sleeve while extending in the second direction, the main body rubber portion formed with a shape generally increasing in length in an axial direction moving from the outer sleeve toward the inner sleeve; wherein a first fluid chamber (32, top of Fig. 1) is formed on a first side of the inner sleeve in the first direction, and a second fluid chamber (32) is formed to the opposite side thereof, the rubber legs constituting the walls of the fluid chambers with the first and second fluid chambers mutually held in fluid communication via a communication passage (36); wherein the rubber elastic body is shaped such that, as views in vertical cross section in the first direction, an inner bonding surface bounded to the inner sleeve extends with an axial distance La (see attachment 1) at an axially center portion of the inner sleeve, while an outer bonding surface bonded to the outer sleeve extends with an axial distance Lb that is larger than the axial distance La (La < Lb) so that the rubber elastic body extends from the axially center portion of the inner sleeve toward the outer sleeve while extending towards mutually opposite axial ends of the outer sleeve, and as viewed in cross section in the second direction approximately orthogonal to the first direction, the inner bonding surface extends with an axial distance Lc that is larger than the axial distance La (La < Lc), while the outer bonding surfaces extends with an axial distance Ld that is smaller than Lc (Lc > Ld); wherein as viewed in vertical cross section in the first direction, the inner sleeve includes a projection (34) formed at the axially center portion thereof so as to protrude in opposite radially outward directions, and the inner bonding surface of the rubber elastic body is bonded to the projection such that the projection is embedded within an radially inner portion of the rubber elastic body; wherein the inner bonding surface of the rubber elastic body is bonded at least partially to axially opposite side faces of the projection; wherein the projection has an approximately rectangular shape with round corners (Fig. 1), as viewed in vertical cross section of the first direction; wherein the projection at least partially constitute a stop mechanism for limiting displacement of the outer sleeve relative to the inner sleeve in one direction perpendicular to an axial direction as viewed in vertical cross section in the first direction; the fluid chambers as viewed in vertical cross section in the first direction, opposed to each other when the inner sleeve interposed therebetween in one radial direction perpendicular to an axial direction of the inner sleeve, each of the fluid chambers being partially defined by axially opposite side walls formed by the rubber elastic body, and the side walls extending approximately straightly from the inner sleeve towards the outer sleeve, while being spaced away from each other in an axial direction of the bushing.

Claims 1-6, 8, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,861,004 to Yokota et al., hereinafter, Yokota. Yokota discloses a suspension rubber bushing comprising: an inner sleeve (1); an outer sleeve (2) disposed about the inner sleeve with a radial spacing therebetween; a rubber elastic body (3) interposed between and elastically connecting the outer and inner sleeves, wherein the rubber elastic body is formed with a shape, as viewed in vertical cross section in a first direction coincident with a direction of prizing force input, having rubber legs (@3a & 3b) affixed to an axially center portion of the inner sleeve, the rubber legs extending towards mutually opposite axial ends, towards the outer sleeve and away fro the inner sleeve so as to form depressed spaces between the rubber legs and the inner sleeve to either axial side of the axially center portion, and as viewed in vertical cross section in a second direction approximately orthogonal to the first direction, having a main body rubber portion thicker than the rubber legs and elastically linking the inner sleeve and outer sleeve while extending in the second direction, the main body rubber portion formed with a shape generally increasing in length in an axial direction moving from the outer sleeve toward the inner sleeve; wherein a first fluid chamber (4, top of Fig. 4A) is formed on a first side of the inner sleeve in the first direction, and a second fluid chamber (4) is formed to the opposite side thereof, the rubber legs constituting the walls of the fluid chambers with the first and second fluid chambers mutually held in fluid communication via a communication passage (5); wherein the rubber elastic body is shaped such that, as views in vertical cross section in the first direction, an inner bonding surface bounded to the inner sleeve extends with an axial distance La (see attachment 2) at an axially center portion of the inner sleeve, while an outer bonding surface bonded to the outer sleeve extends with an axial distance Lb that is larger than the axial distance La (La < Lb) so that the rubber elastic body extends from the axially center portion of the inner sleeve toward the outer sleeve while extending towards mutually opposite axial ends of the outer sleeve, and as viewed in cross section in the second direction approximately orthogonal to the first direction, the inner bonding surface extends with an axial distance Lc that is larger than the axial distance La (La < Lc), while the outer bonding surfaces extends with an axial distance Ld that is smaller than Lc (Lc > Ld); wherein as viewed in vertical cross section in the first direction, the inner sleeve includes a projection (7) formed at the axially center portion thereof so as to protrude in opposite radially outward directions, and the inner bonding surface of the rubber elastic body is bonded to the projection such that the projection is embedded within an radially inner portion of the rubber elastic body; wherein the inner bonding surface of the rubber elastic body is bonded at least partially to axially opposite side faces of the projection; wherein the inner sleeve further includes a pair of recessed portions (see attachment 2) formed at either axial side of the projection so as to extend circumferentially continuously over an entire circumference of the inner sleeve, and the recessed portions are embedded with a pair of rubber layers both integrally connected to opposite axial end portions of the radially inner portion of the rubber elastic body, respectively; wherein the projection at least partially constitute a stop mechanism for limiting displacement of the outer sleeve relative to the inner sleeve in one direction perpendicular to an axial direction as viewed in vertical cross section in the first direction; the fluid chambers as viewed in vertical cross section in the first direction, opposed to each other when the inner sleeve interposed therebetween in one radial direction perpendicular to an axial direction of the inner sleeve, each of the fluid chambers being partially defined by axially opposite side walls formed by the rubber elastic body, and the side walls extending approximately straightly from the inner sleeve towards the outer sleeve, while being spaced away from each other in an axial direction of the bushing.

## *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 4,834,351 to Freudenberg et al.

U.S. Patent 4,883,260 to Kanda

U.S. Patent 4,893,798 to Hibi et al.

U.S. Patent 5,188,346 to Hamada et al.

U.S. Patent 5,190,269 to Ikeda et al.

U.S. Patent 5,413,319 to Hein et al.

U.S. Patent 5,299,788 to Kanda

U.S. Patent 5,725,202 to Nakamura et al.

U.S. Patent 5,975,509 to Miyamoto

U.S. Patent 6,102,380 to Tsutsumida

U.S. Patent 6,224,046 to Miyamoto

U.S. Patent 6,698,731 to Thornhill

The above patents all disclose various types of elastic bushings having fluid chambers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita M. King whose telephone number is (703) 308-2162. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leslie A. Braun can be reached on (703) 308-2156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anita M. King
Primary Examiner
Art Unit 3632

June 13, 2004

ATTACHMENT 1

FIG.1

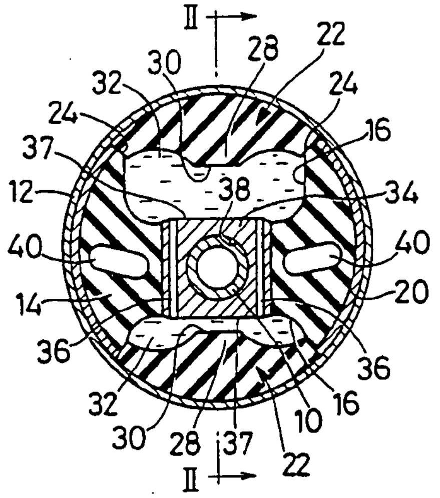


FIG.2

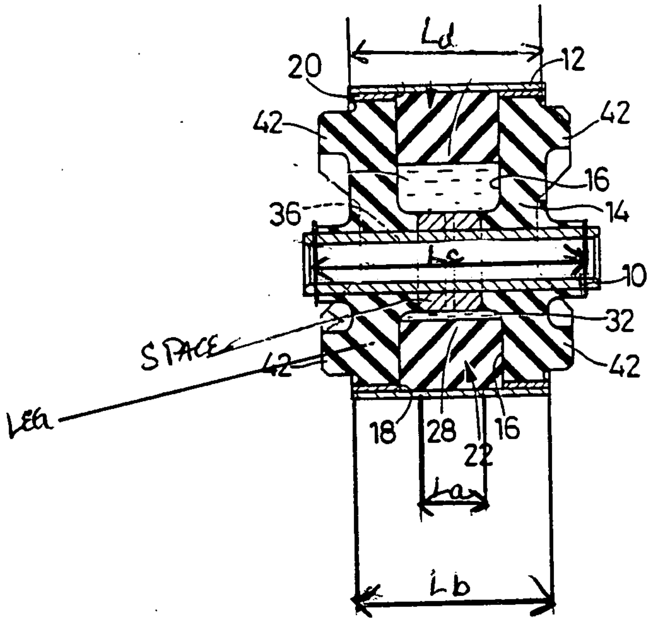
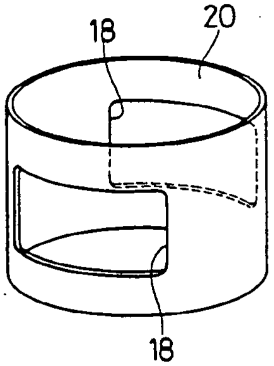


FIG.3



ATTACHMENT 2

FIG. 4A

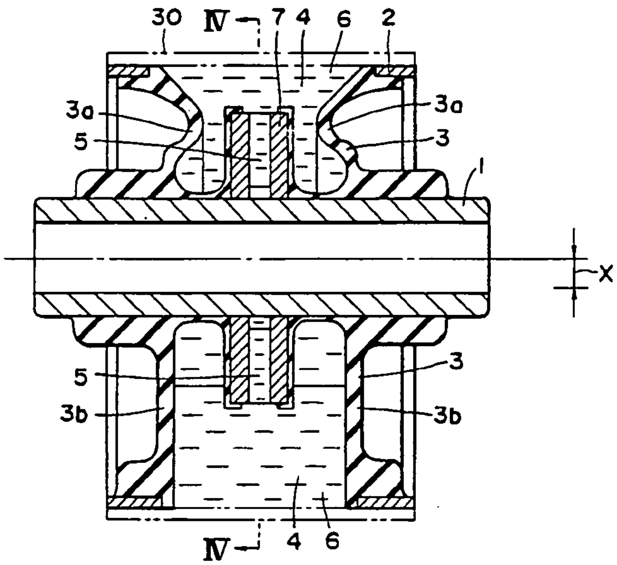


FIG. 4B